

## CLAIMS:

1. A holographic recording and reproducing apparatus for recording data as phase information of light in a holographic recording medium by projecting a signal beam and a reference beam thereonto, the holographic recording and reproducing apparatus comprising at least a spatial light modulator, a Fourier transform lens, a reverse Fourier transform lens and a CCD image sensor, the holographic recording medium being disposed between the Fourier transform lens and the reverse Fourier transform lens, and the focal length of the Fourier transform lens and focal length of the reverse Fourier transform lens being different from each other.
2. A holographic recording and reproducing apparatus in accordance with Claim 1, wherein the focal length of the Fourier transform lens is set to be longer than that of the reverse Fourier transform lens.
3. A holographic recording and reproducing apparatus in accordance with Claim 1, wherein the focal length of the reverse Fourier transform lens is set to be longer than that of the Fourier transform lens.
4. A holographic recording and reproducing apparatus in accordance with Claim 1, which further comprises a pinhole disposed at a confocal point of the Fourier transform lens and the reverse Fourier transform lens.
5. A holographic recording and reproducing apparatus in accordance with Claim 2, which further comprises a pinhole disposed at a confocal point of the Fourier transform lens and the reverse Fourier transform lens.

6. A holographic recording and reproducing apparatus in accordance with Claim 3, which further comprises a pinhole disposed at a confocal point of the Fourier transform lens and the reverse Fourier transform lens.

5